

FIG. 1

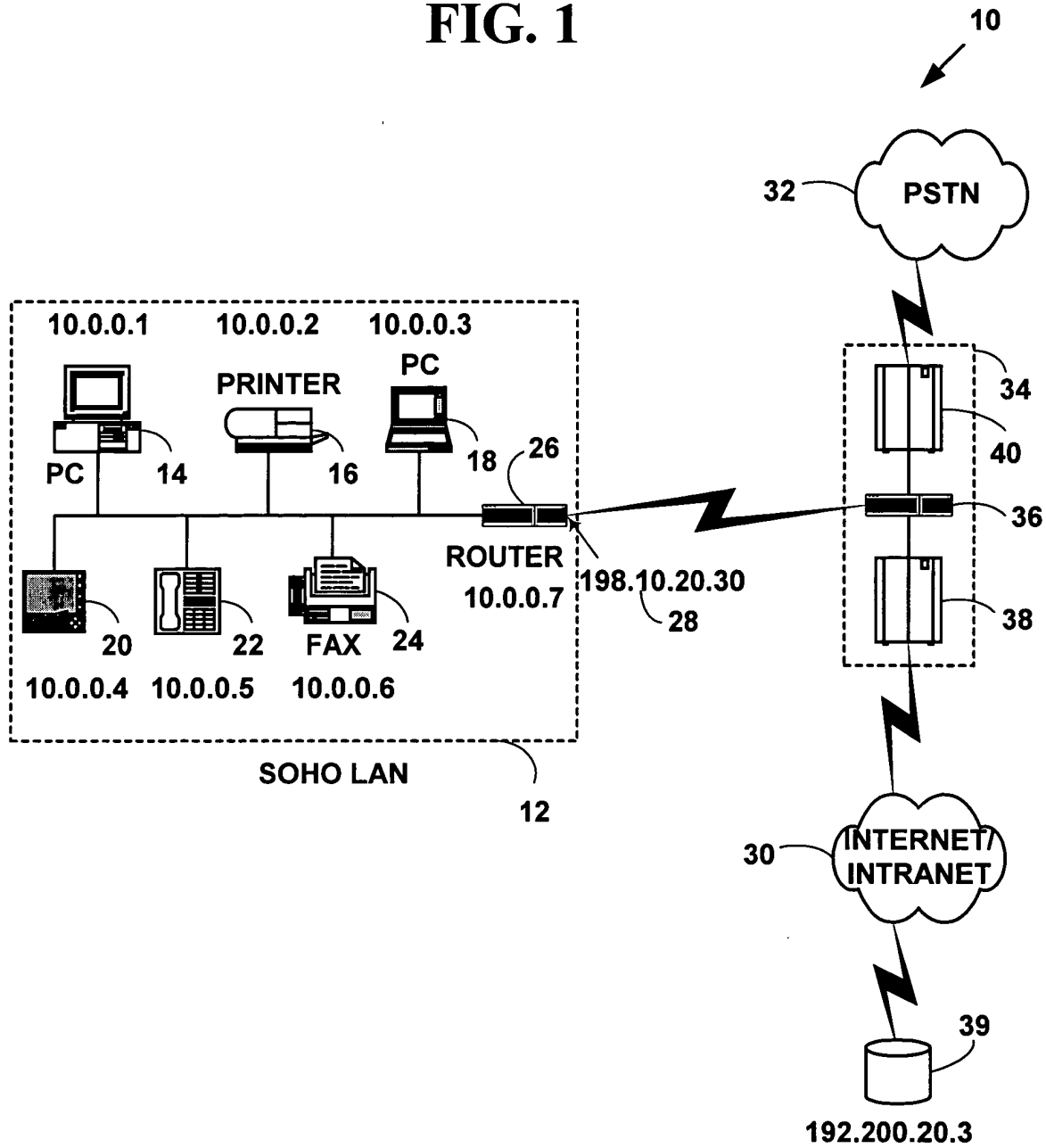


FIG. 2

PROTOCOL STACK

42

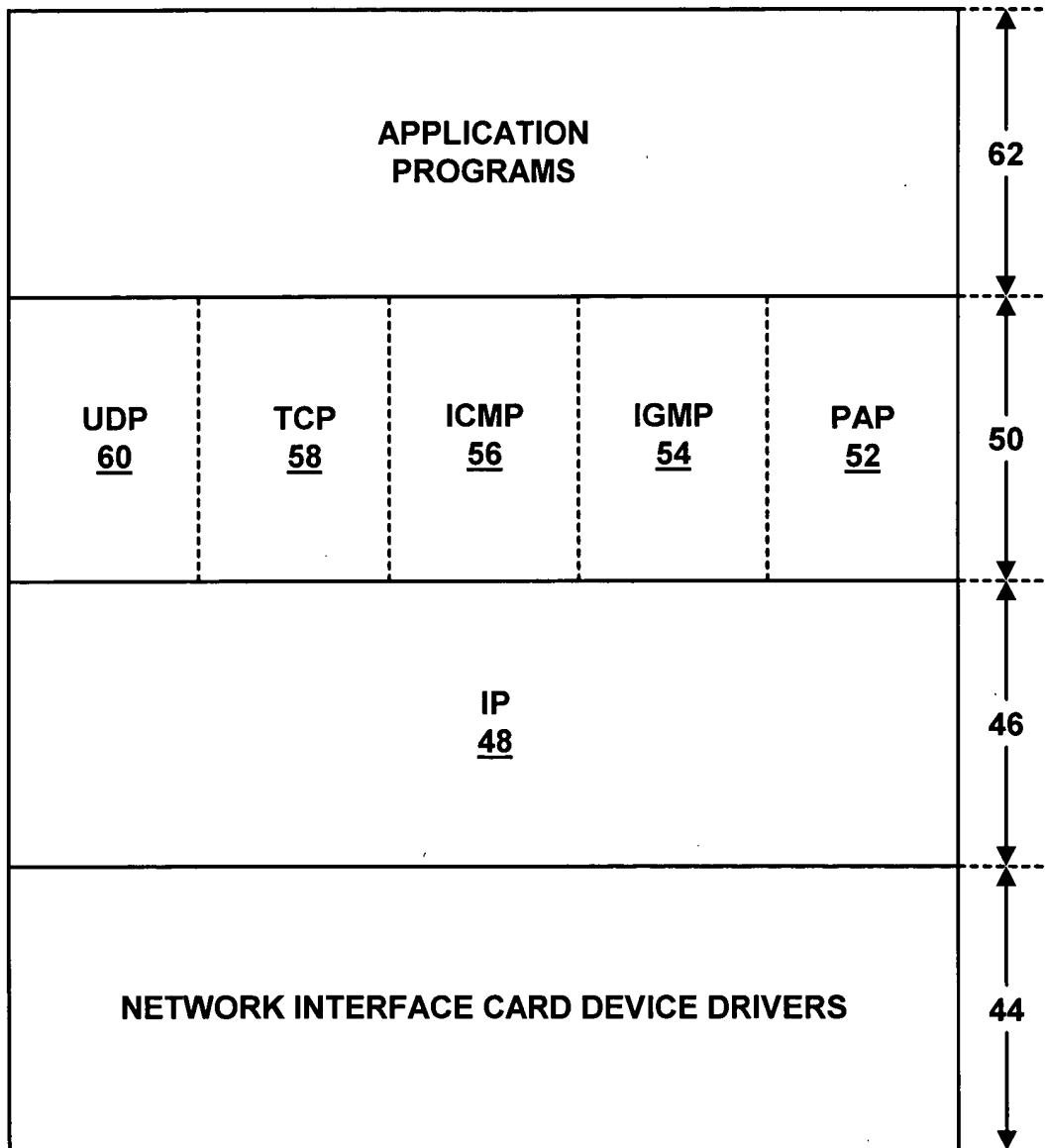


FIG. 3

PORT ALLOCATION PROTOCOL (PAP)

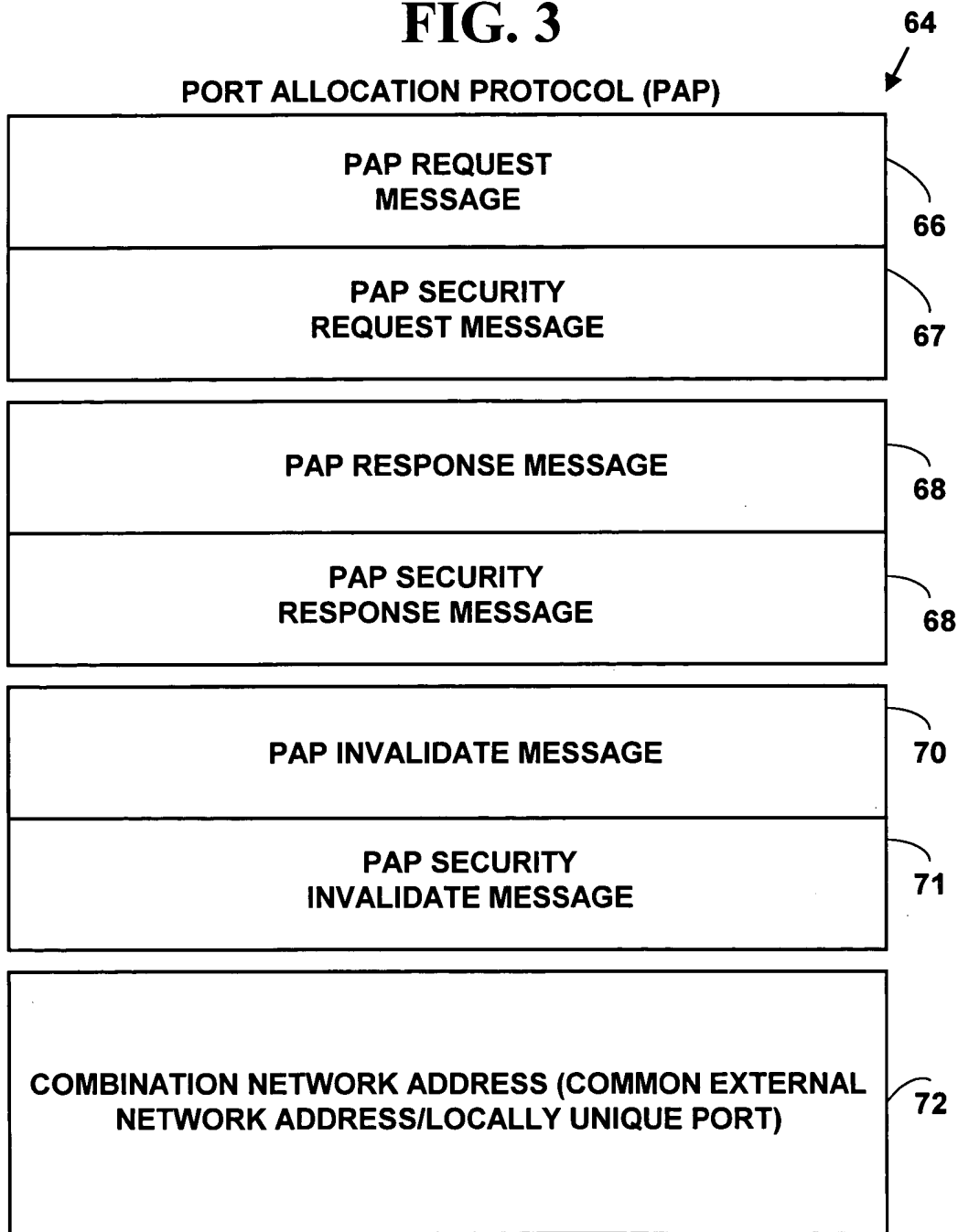


FIG. 4

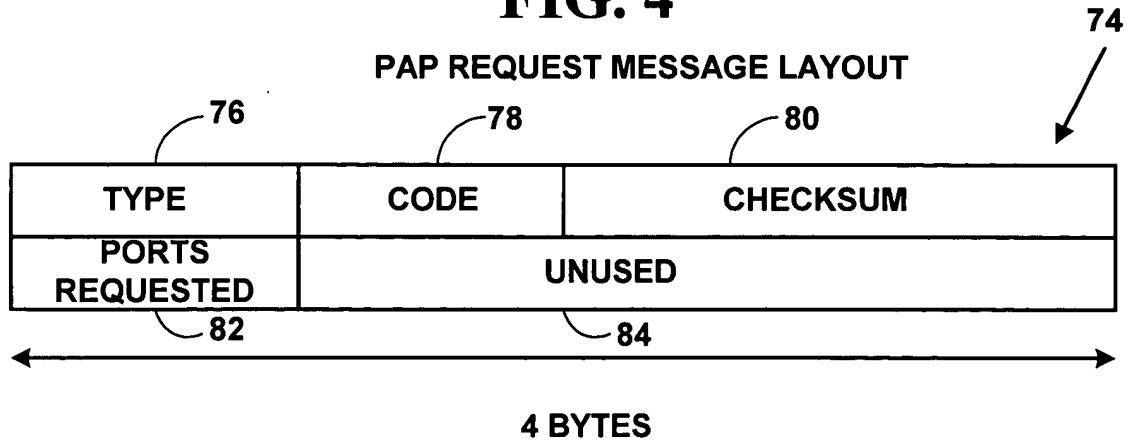


FIG. 5

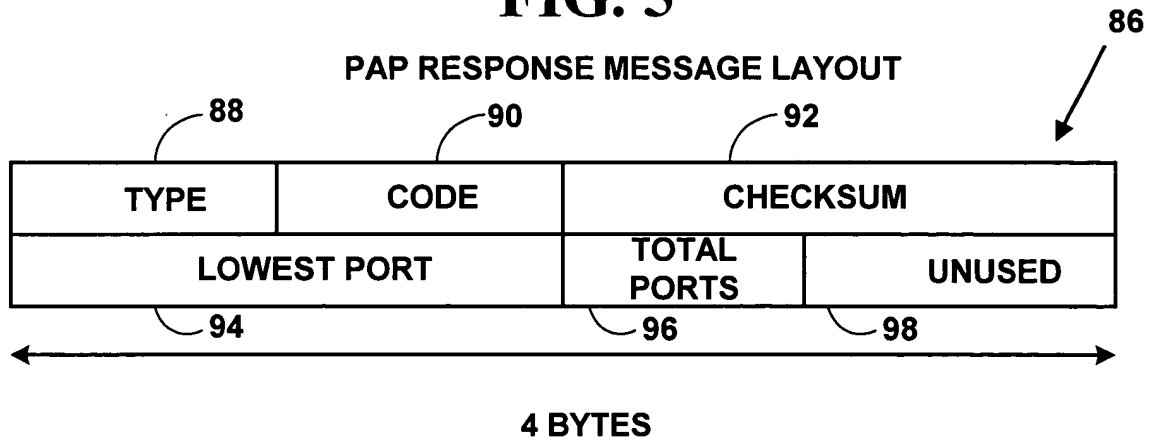


FIG. 6

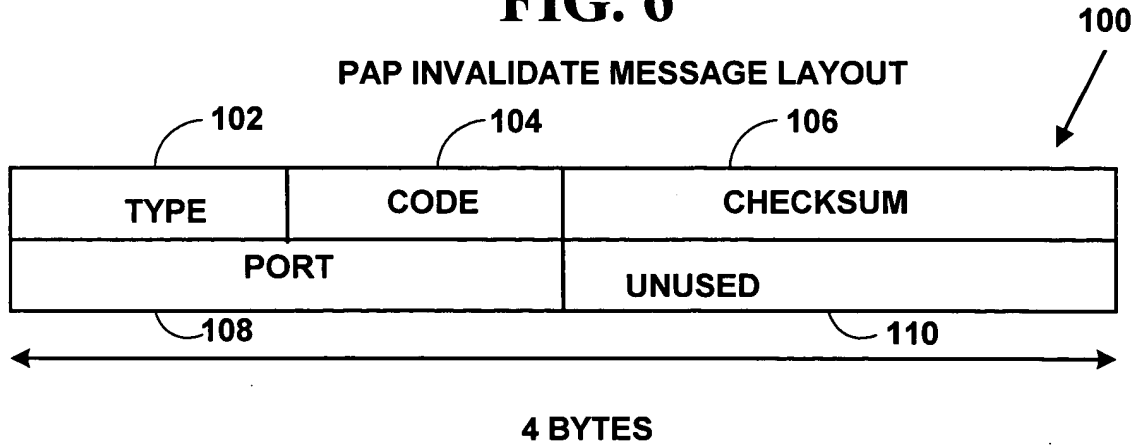


FIG. 7

EXTERNAL NETWORK ADDRESS (E.G., EXTERNAL IP ADDRESS)	LOCALLY UNIQUE PORT
198.10.20.30	1032

FIG. 8

INTERNAL NETWORK ADDRESS	LOWEST PORT	NUMBER OF PORTS
10.0.0.1	1026	32
10.0.0.3	1058	16

PORT-TO-INTERNAL-NETWORK
ADDRESS TABLE

FIG. 4A

PAP SECURITY REQUEST MESSAGE LAYOUT

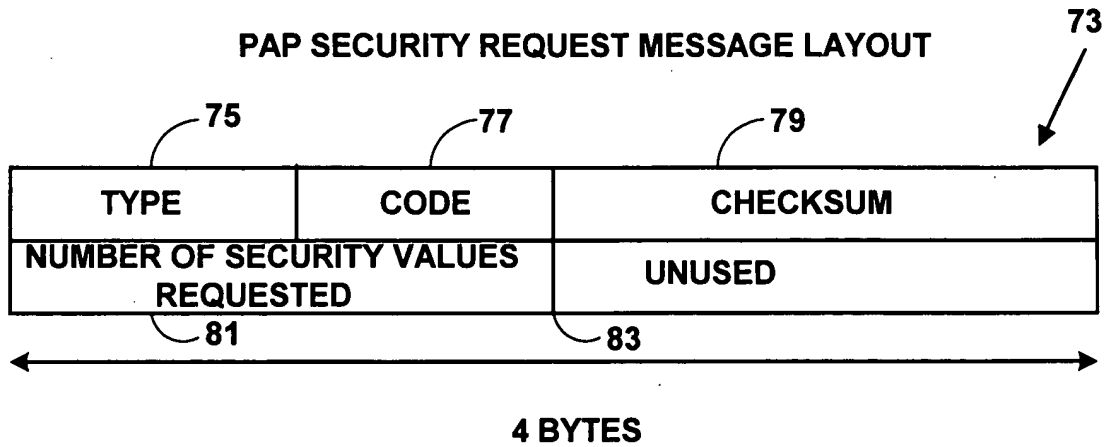


FIG. 5A

PAP SECURITY RESPONSE MESSAGE LAYOUT

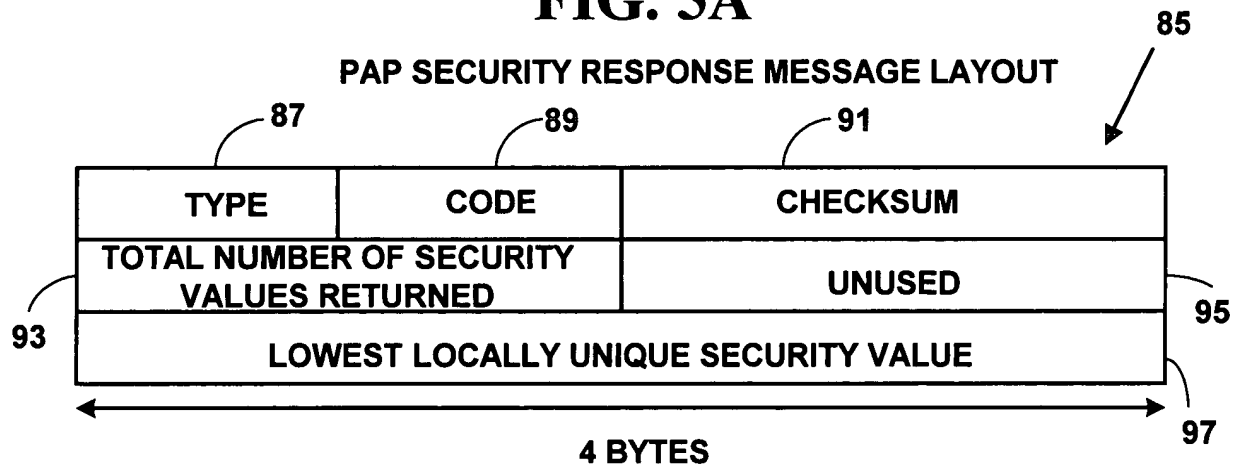


FIG. 6A

PAP SECURITY INVALIDATE MESSAGE LAYOUT

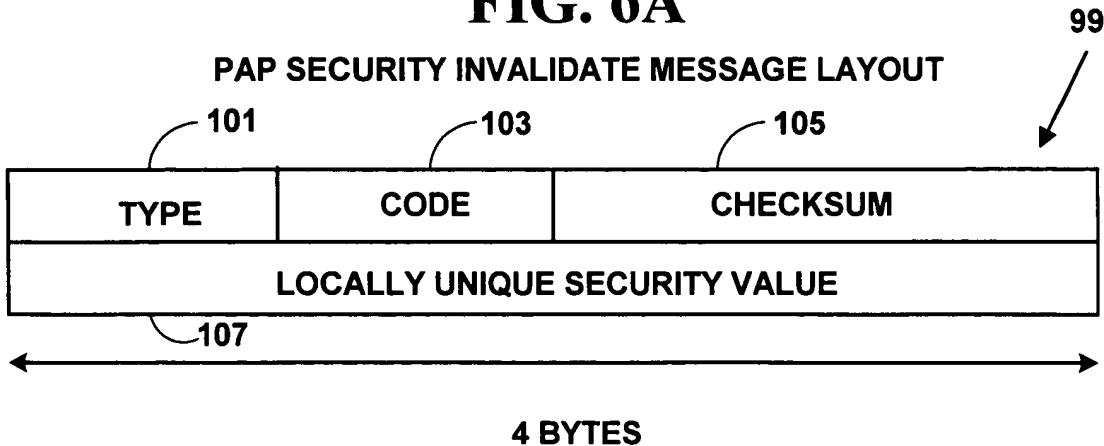


FIG. 9

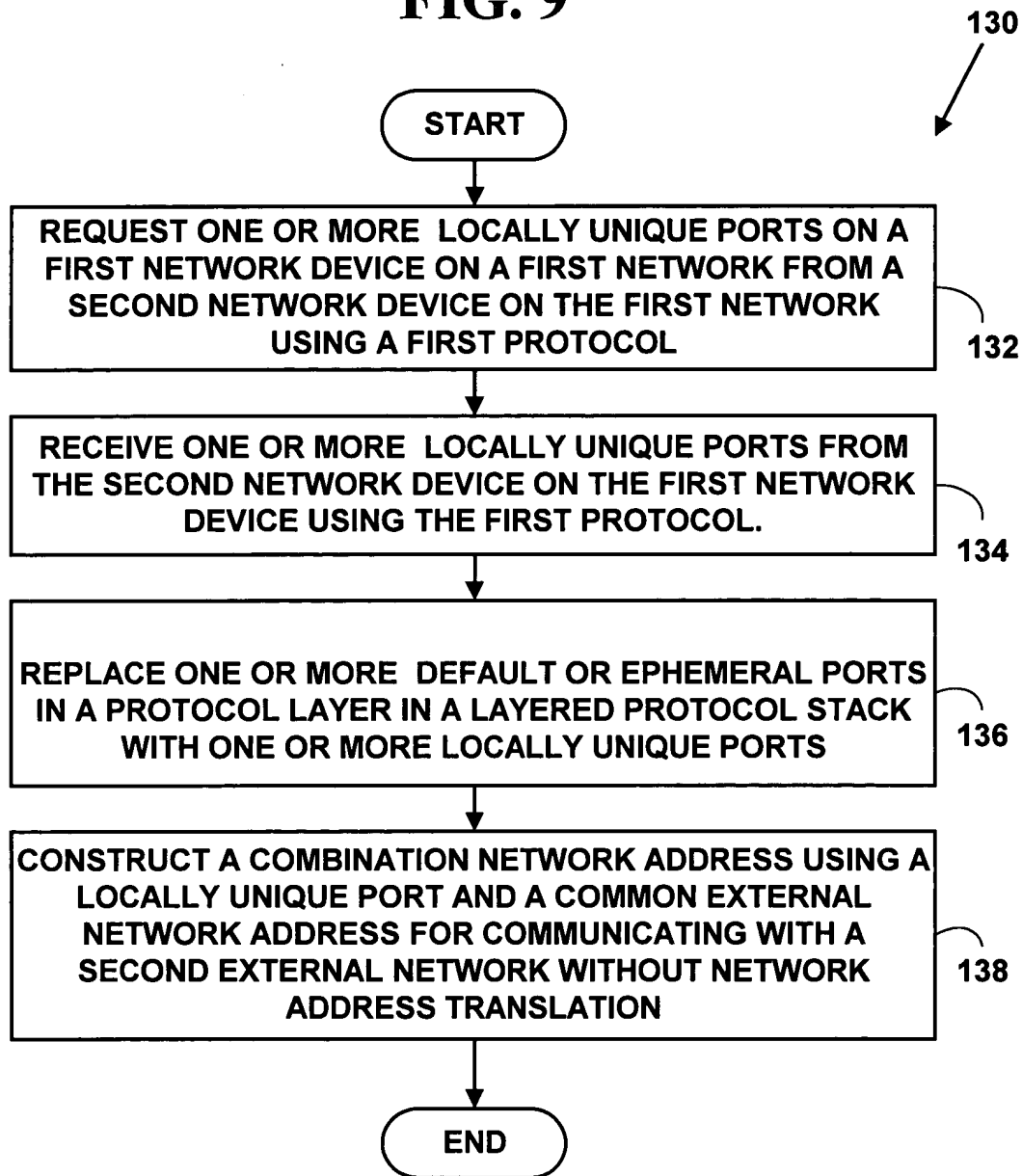


FIG. 10

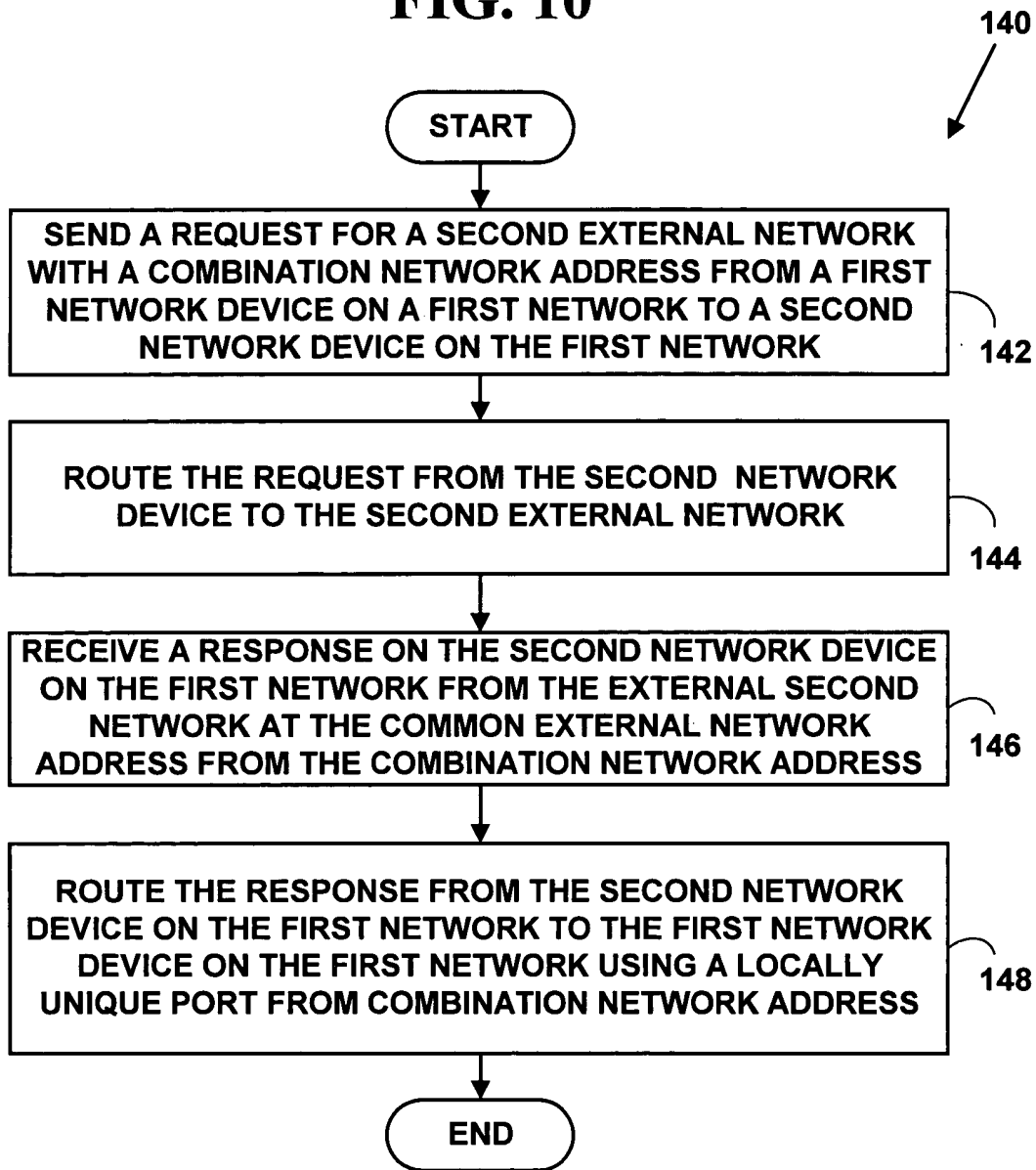


FIG. 11
SOURCE PORT TRANSLATION TABLE
(SPTT)

150

152 DEFAULT PORT		154 TRANSLATED PORT	
156 PROTOCOL		158 TIMESTAMP	

FIG. 12
IP ADDRESS TRANSLATION TABLE
(IPATT)

160

162 DESTINATION PORT		164 INTERNAL DESTINATION IP ADDRESS	
166 PROTOCOL		168 TIMESTAMP	

FIG. 13

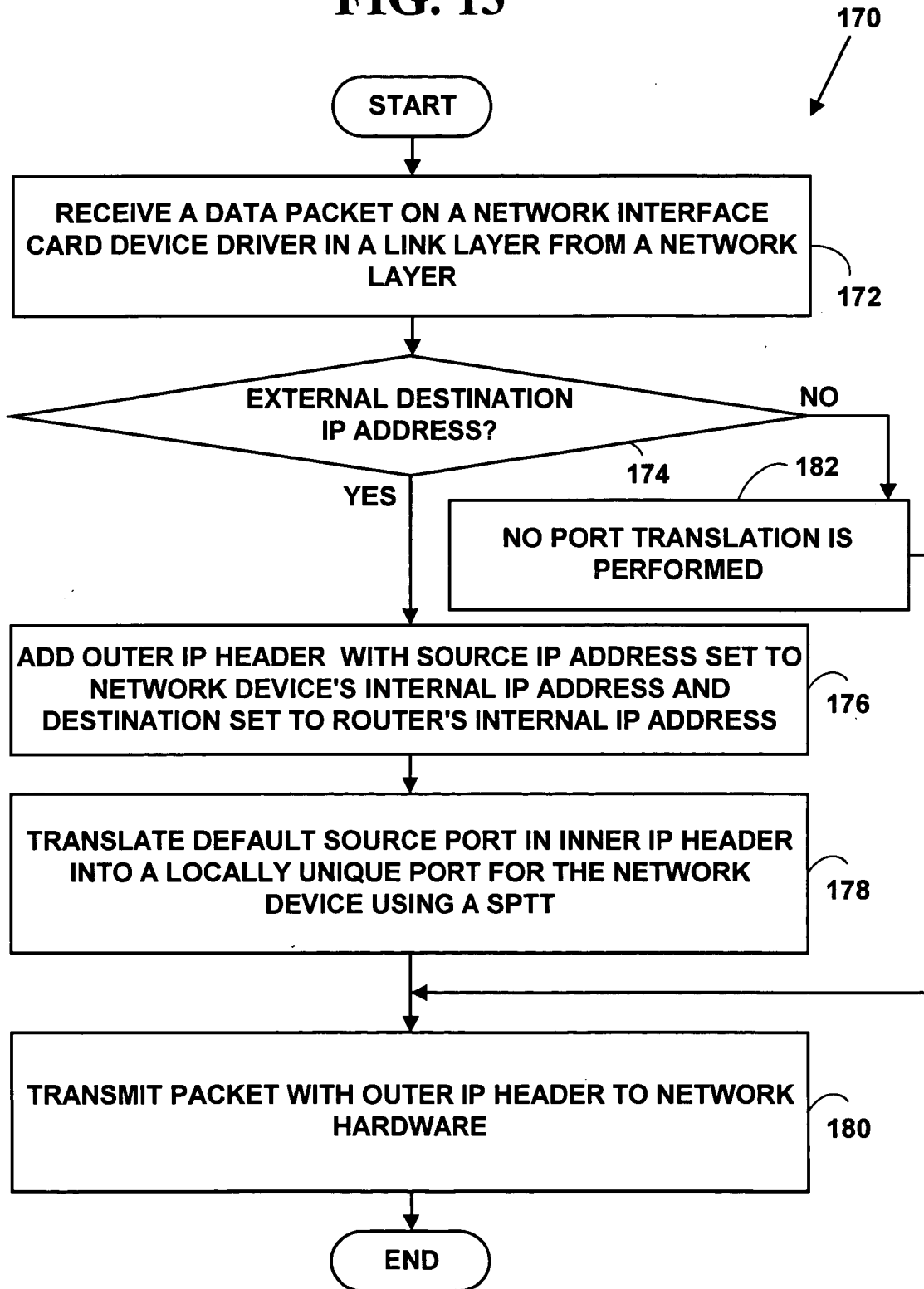
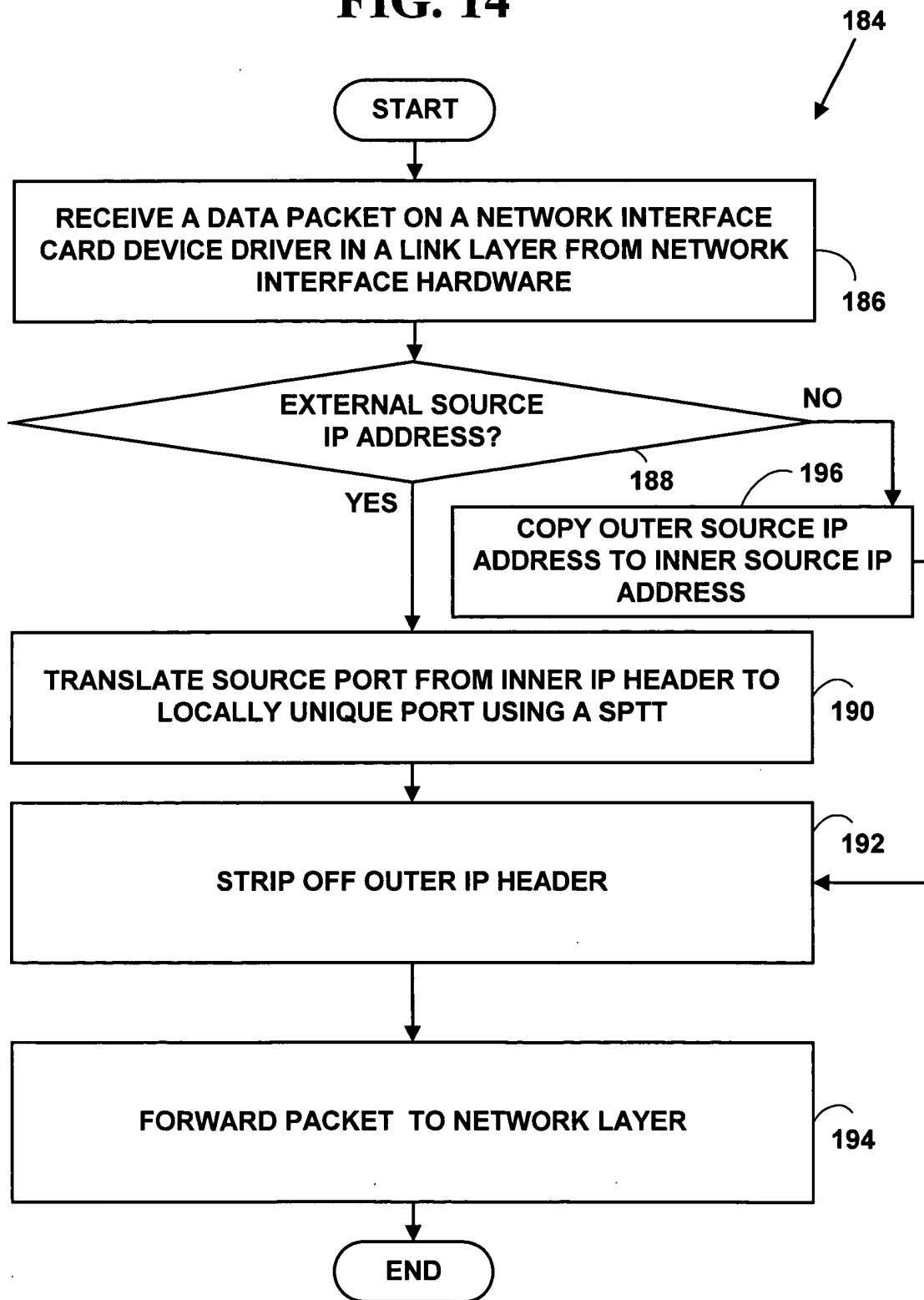


FIG. 14



200

VER <u>202</u>	IHL <u>204</u>	TOS <u>206</u>	TOTAL LENGTH <u>208</u>
IDENTIFICATION <u>210</u>			FRAGMENT OFFSET <u>212</u>
TIME-TO-LIVE <u>214</u>	PROTOCOL <u>216</u>		HEADER CHECKSUM <u>218</u>
SOURCE ADDRESS <u>220</u>			
DESTINATION ADDRESS <u>222</u>			
OPTIONS <u>224</u>			

FIG. 16

AH HEADER FORMAT

226



NEXT HEADER <u>228</u>	PAYLOAD LENGTH <u>230</u>	RESERVED <u>232</u>
SECURITY PARAMETER INDEX ("SPI") <u>234</u>		
SEQUENCE NUMBER FIELD <u>236</u>		
AUTHENTICATION DATA <u>238</u>		

664230-89743260

FIG. 17

ESP HEADER FORMAT

240

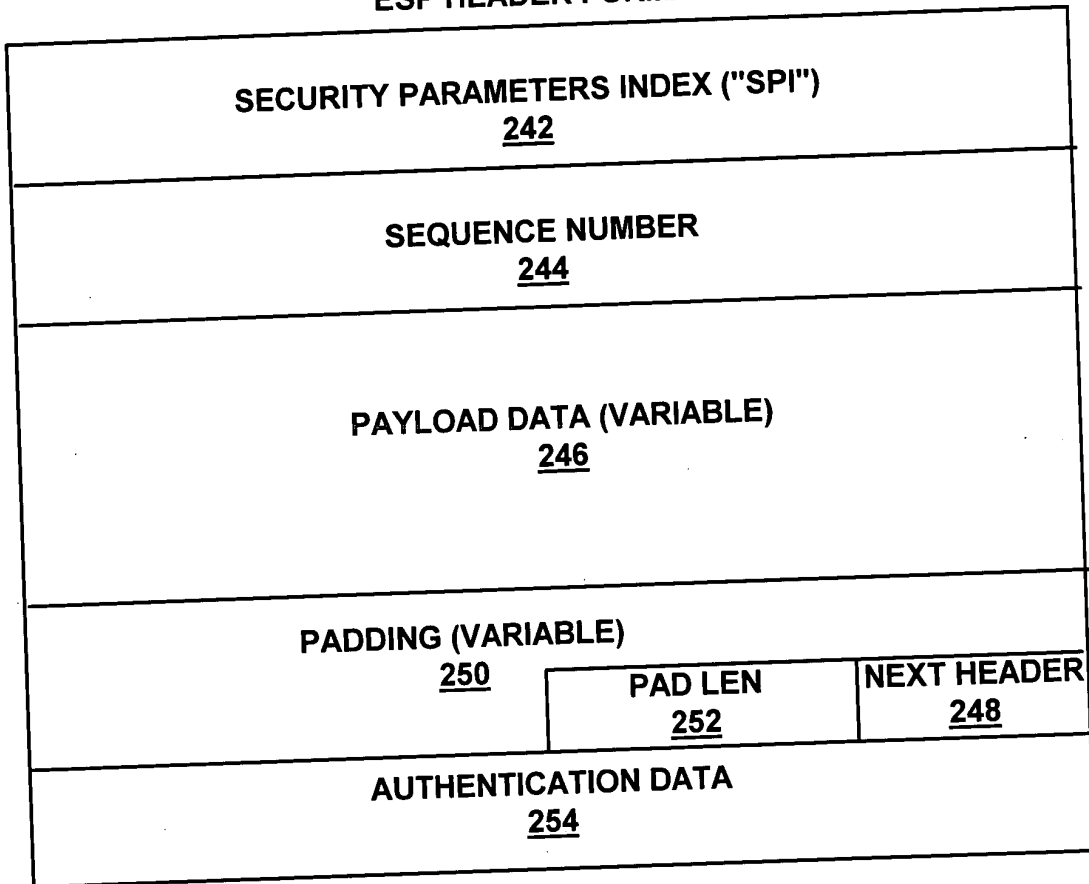


FIG. 18

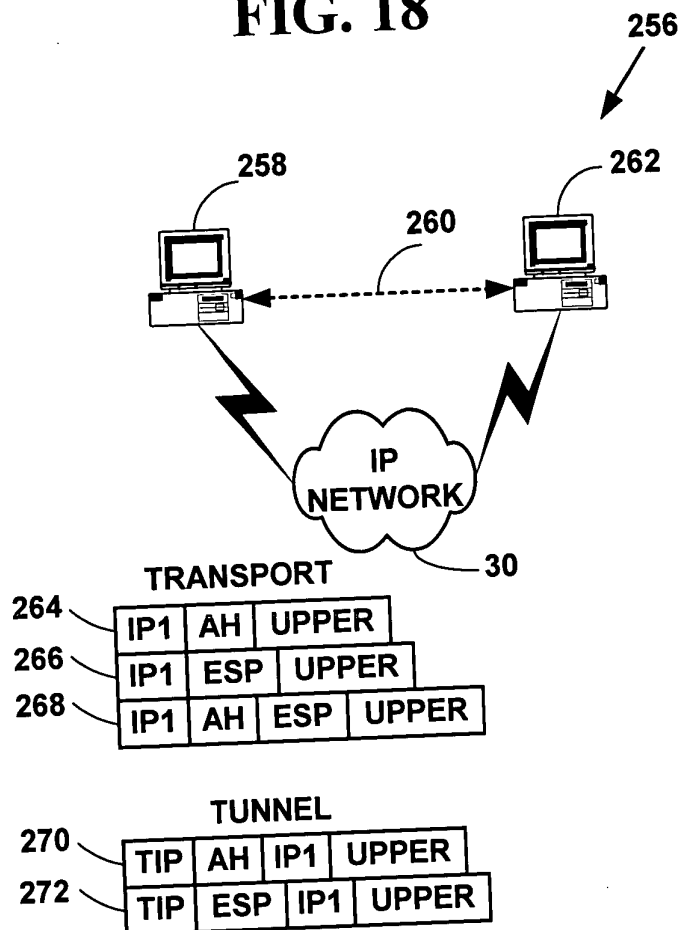
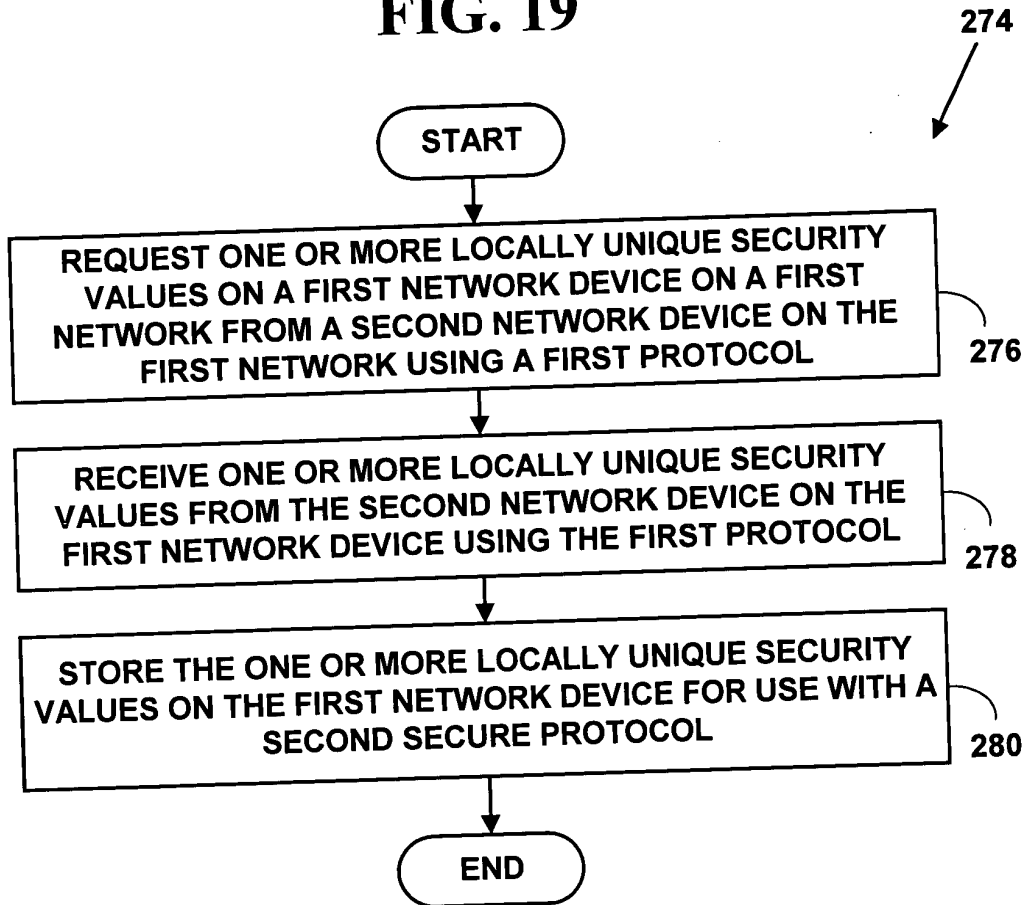
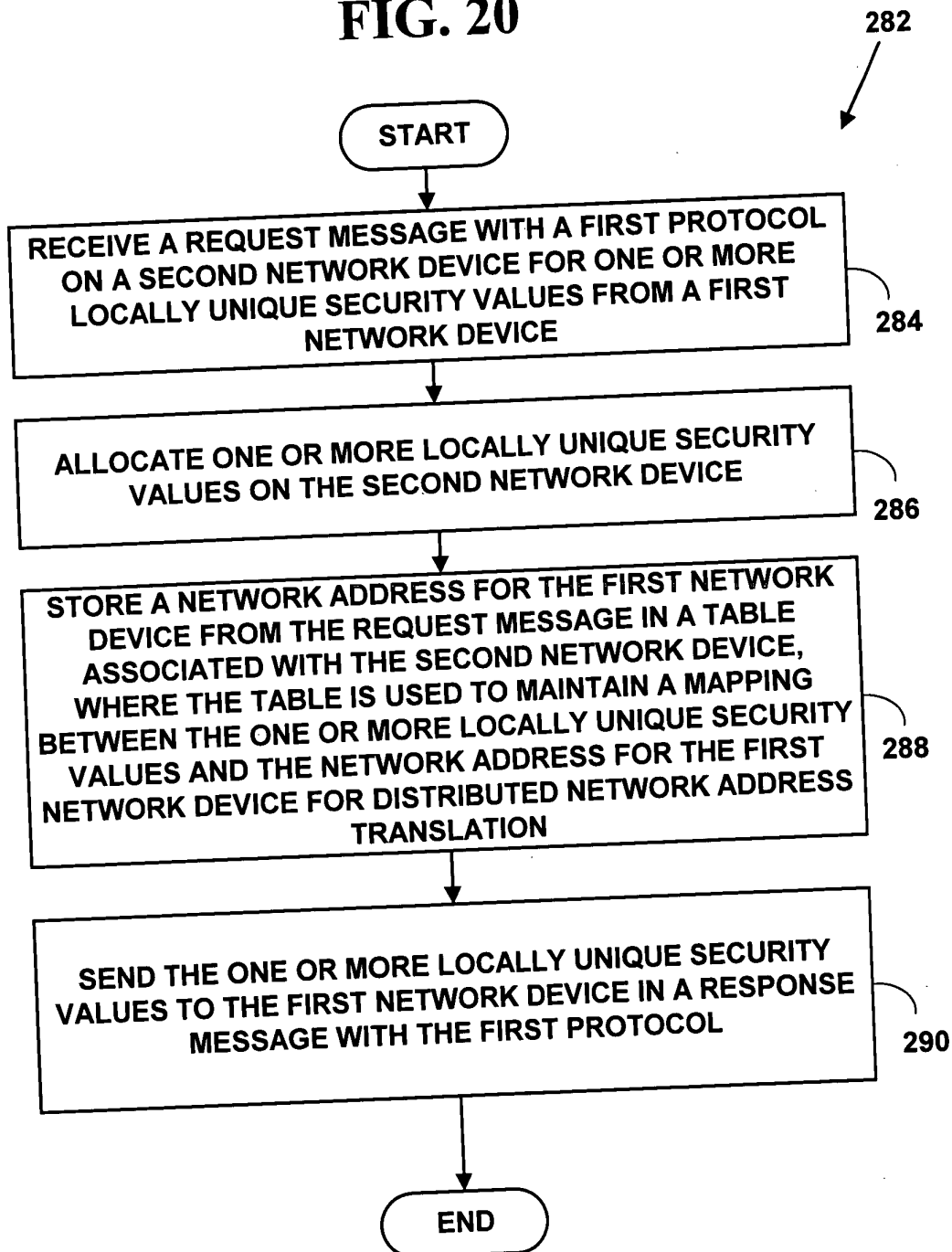


FIG. 19



664230-0374360

FIG. 20



654230-3514360

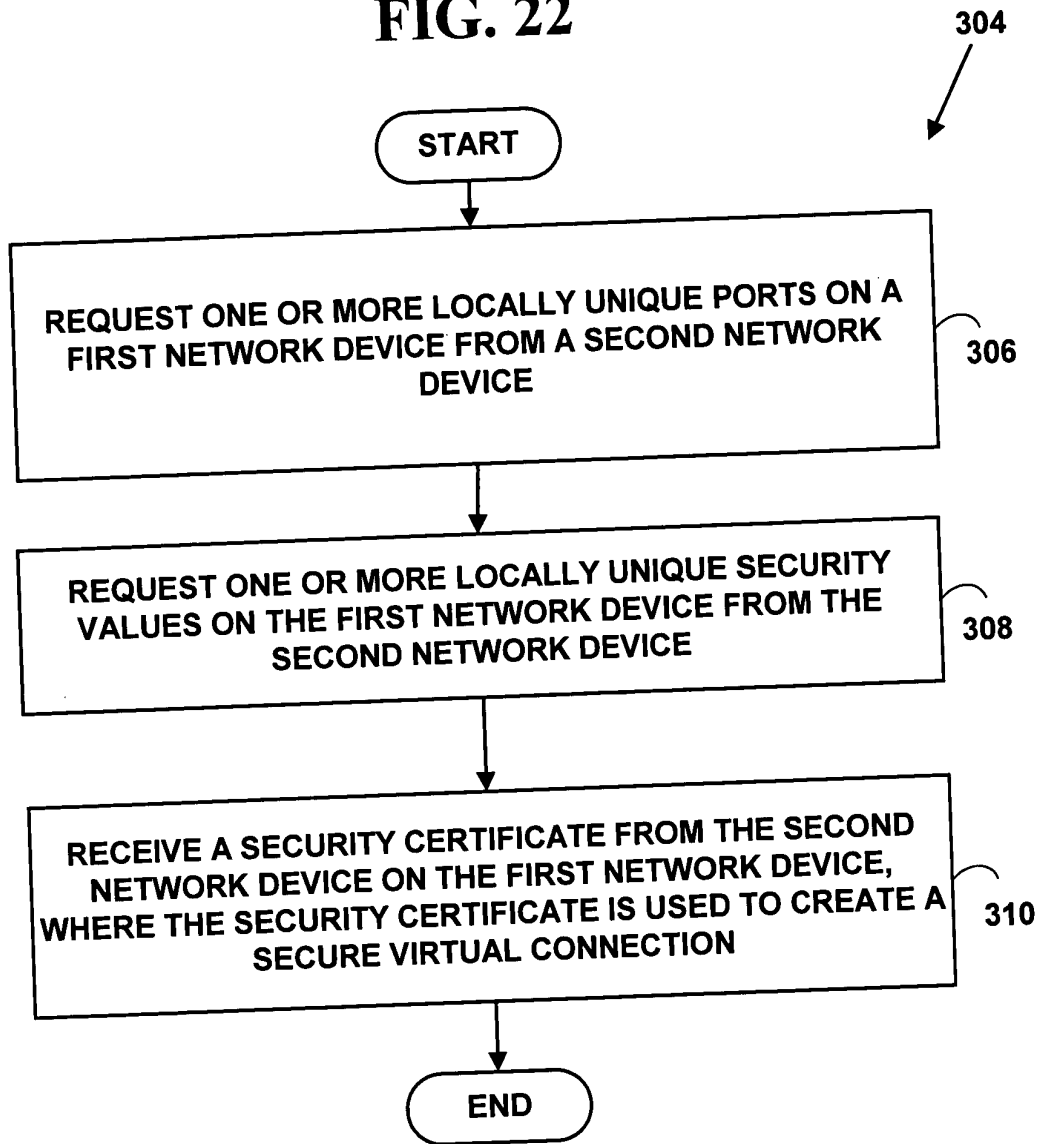
292

INTERNAL NETWORK ADDRESS	LOWEST SPI	NUMBER OF SPIs
10.0.0.1	280	32
10.0.0.3	312	16

SPI-TO-INTERNAL-NETWORK ADDRESS TABLE

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FIG. 22



654280-8974360

SECRET

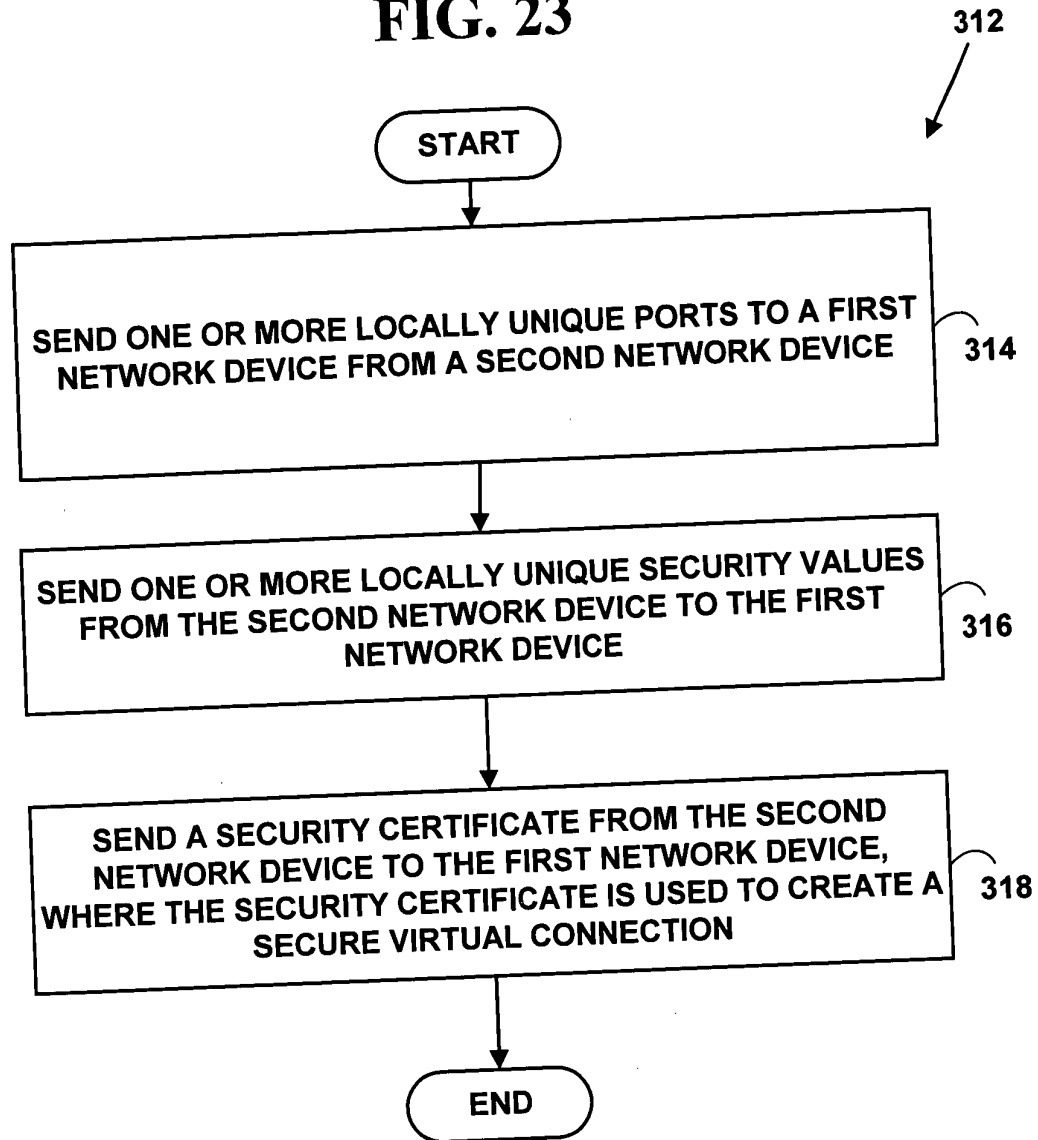


FIG. 25

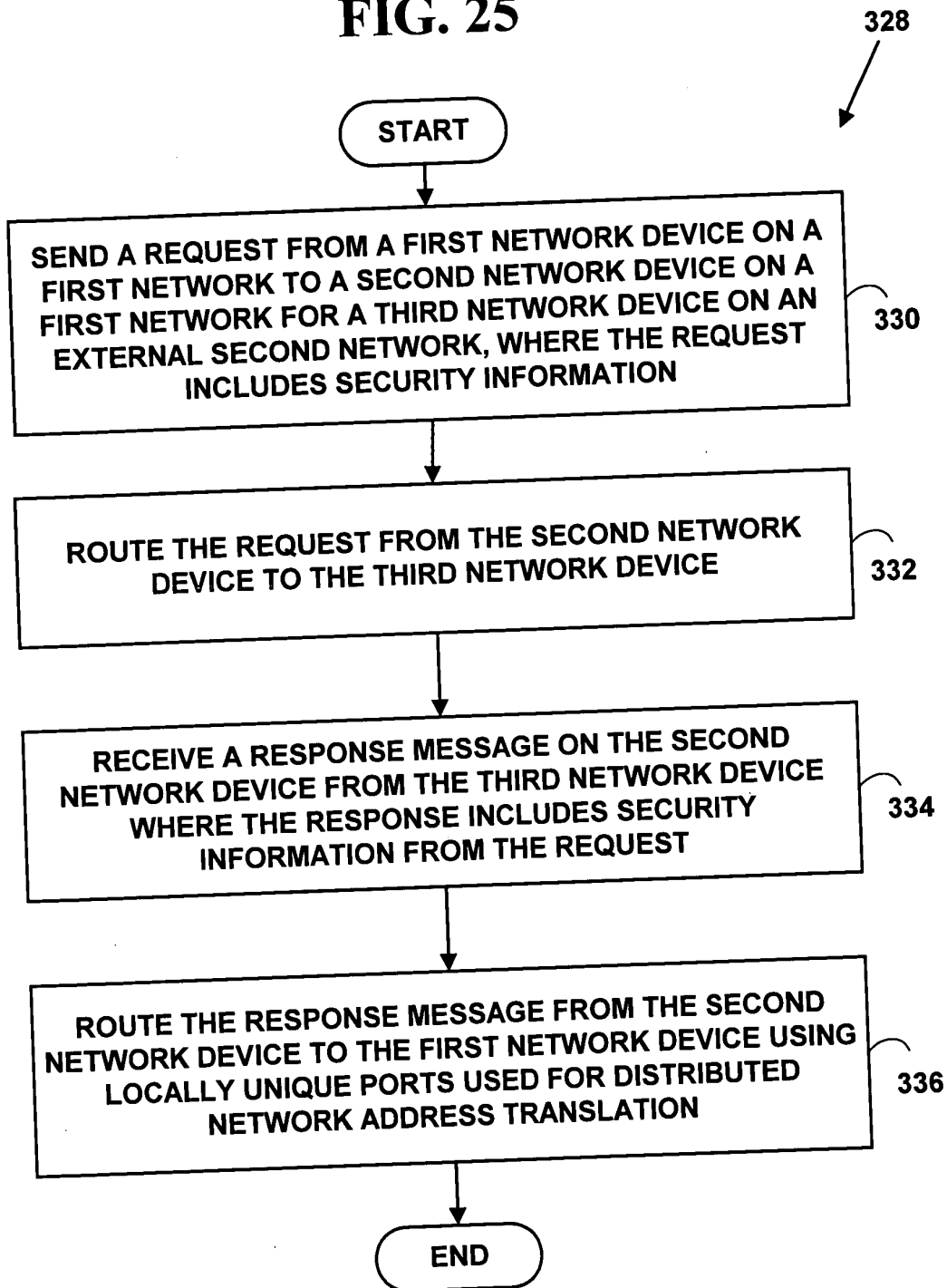
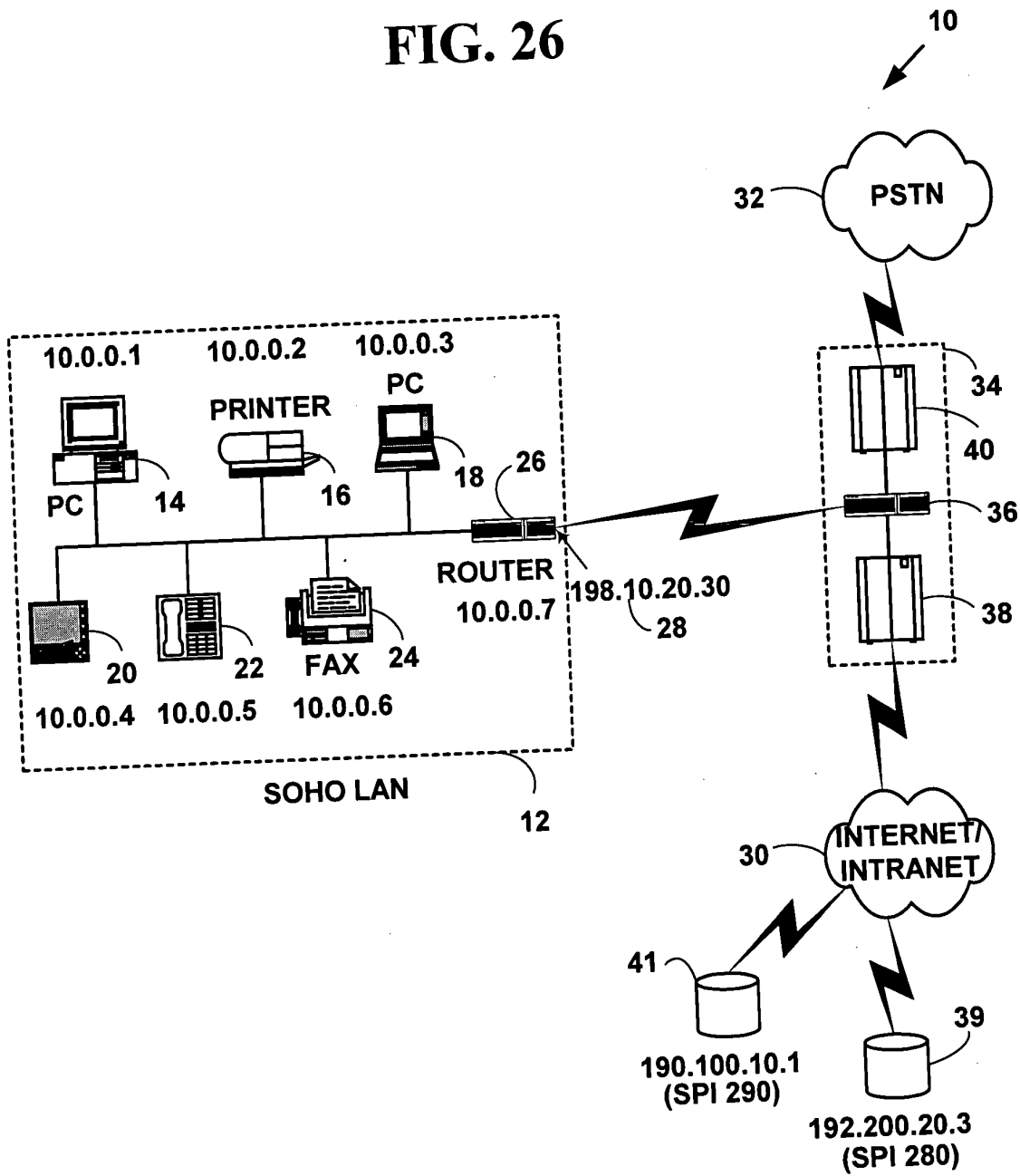
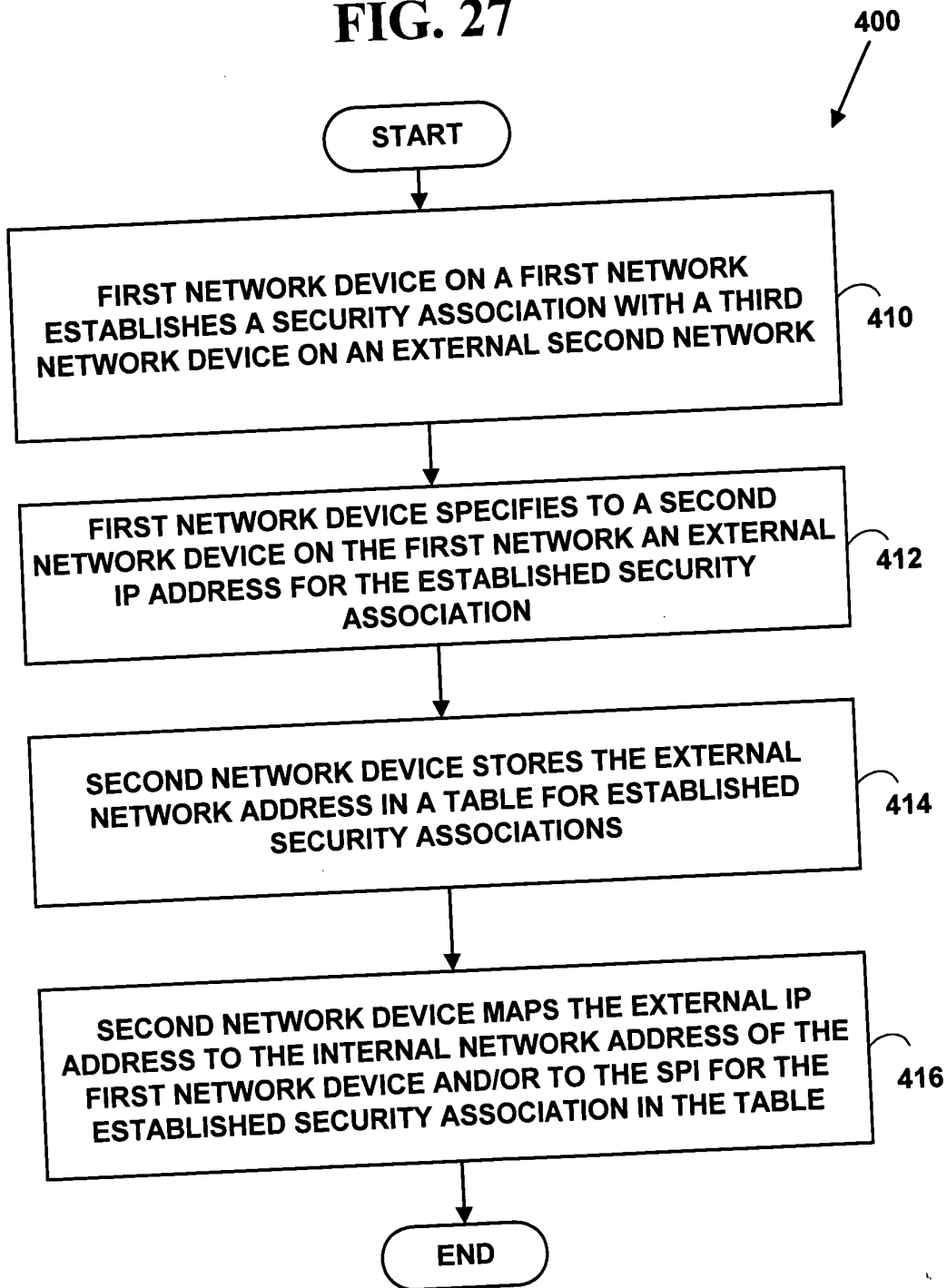


FIG. 26



002230-35118260

FIG. 27



00220-8540E00

FIG. 28A
PAP EXTERNAL ADDRESS VALIDATING
MESSAGE LAYOUT

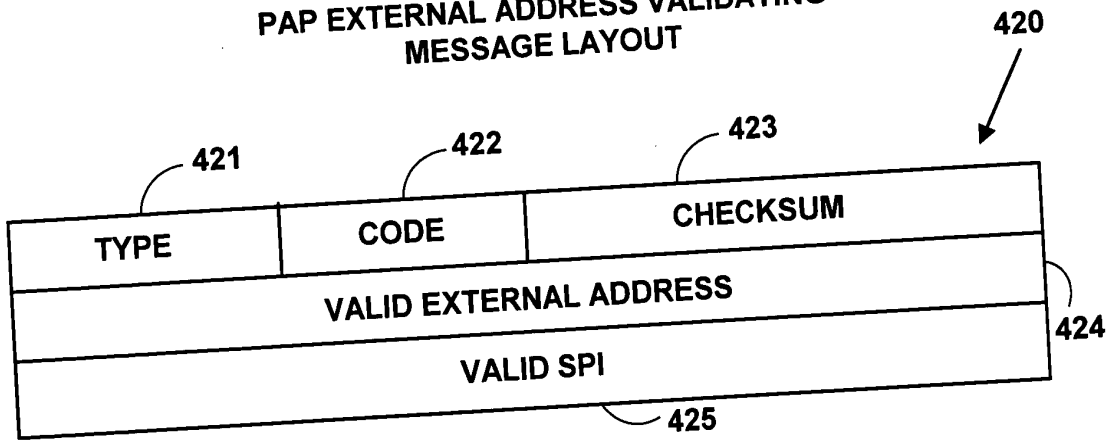


FIG. 28B
PAP EXTERNAL ADDRESS INVALIDATING
MESSAGE LAYOUT

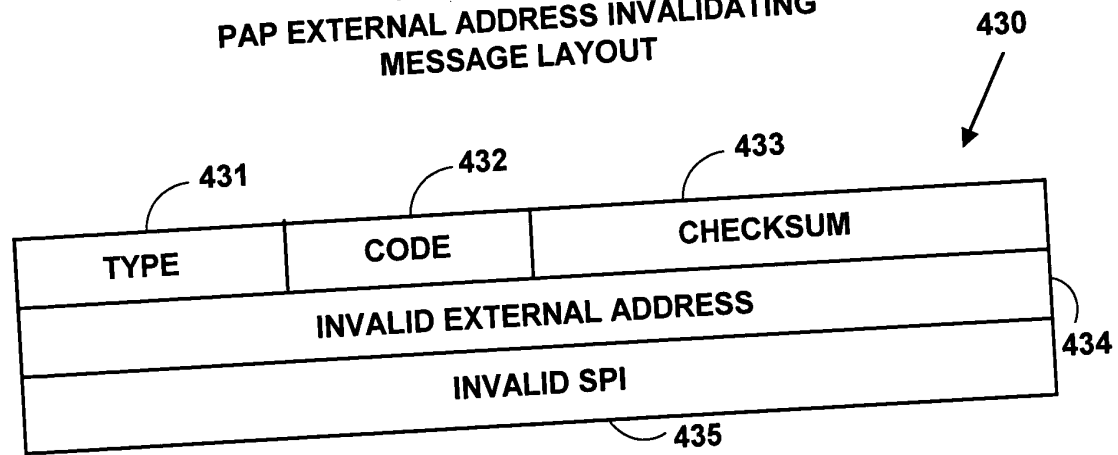


FIG. 29A

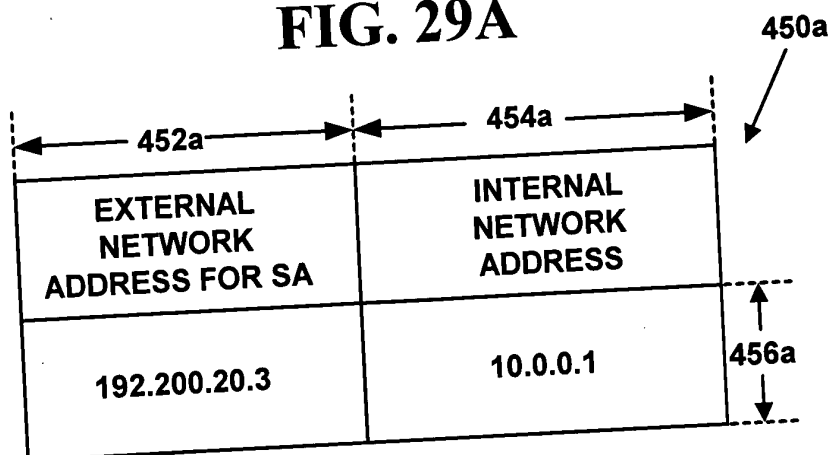


FIG. 29B

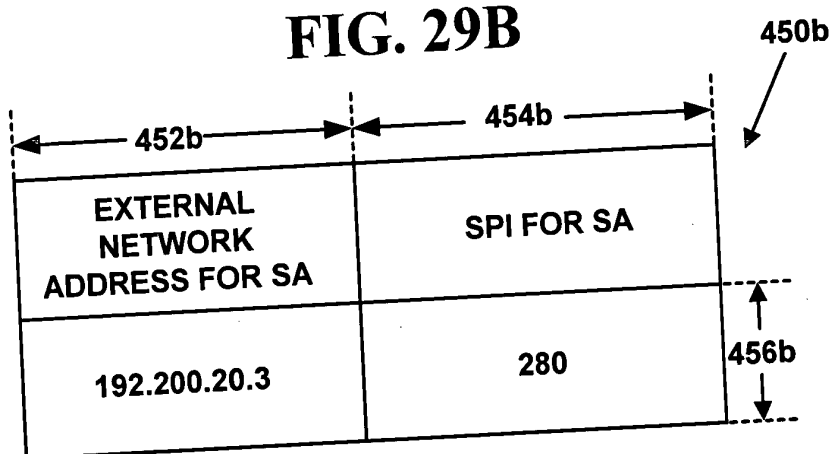
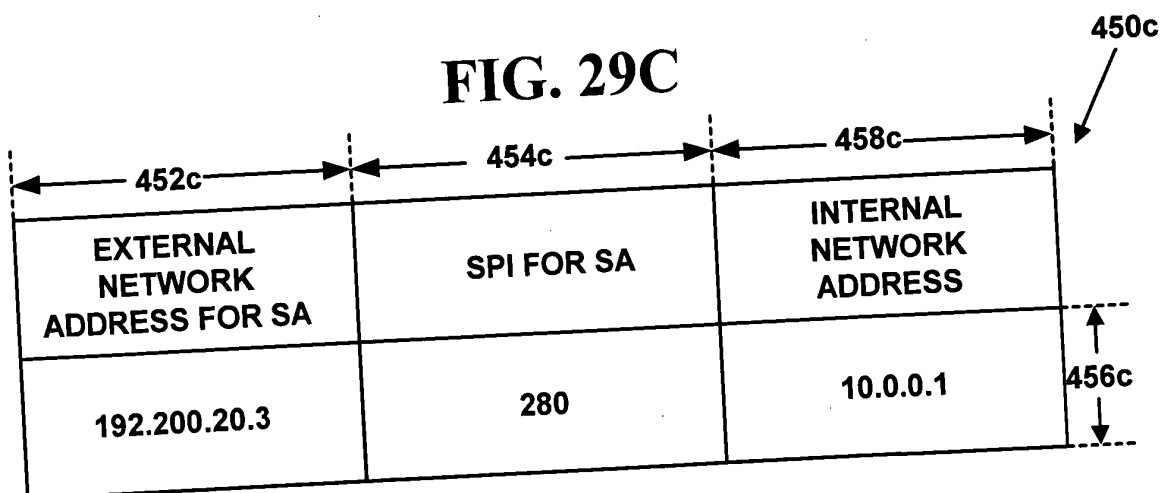


FIG. 29C



060307

